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NOV 03 2008

Claims

What is claimed is:

1. A flow rate regulation filter which is installed in a discharge flow path
of a fuel container of a fuel cell wherein the fuel container accommodates
liquid contents of a liquefied fuel such that the fuel container is capable
of discharging the liquid contents in a liquid state or in a gaseous state,
which is characterized in that the flow rate regulation filter is comprised
of an elastic body having continuous pores, and a holder which is consisted
of a molded body fused to the elastic body to ensure that this elastic
body blocks the discharge flow path, and the elastic body and the holder
are made of a thermoplastic resin which is not corroded by the liquid contents.
2. The flow rate regulation filter as described in Claim 1 wherein said
thermoplastic resin is at least one selected from the group consisting
of polyethylene, polypropylene, polyoxymethylene,
polyethyleneterephthalate, polyethylene naphthalate or polyacrylonitrile.
3. The flow rate regulation filter as described in Claim 1 or Claim 2 wherein
said elastic body is obtained by the following process: after mixing said

thermoplastic resin, an aqueous organic compound and an aqueous polymer material, said aqueous organic compound and said aqueous polymer material are extracted and removed by water.

4. The flow rate regulation filter as described in Claim 1 or Claim 2 or Claim

5. 3 wherein said elastic body has a pore diameter of 30 μm or less and a pore ratio ranging from 60 to 90%.

5. A fuel container for a fuel cell characterized in that said fuel container

for a fuel cell is comprised of a container body having a connection portion

that is opened externally for supplying the liquid contents, a storage

10 chamber that is formed in the interior of the container body for storing

said liquid contents, an extrusion means by extruding the liquid contents

in the storage chamber under the pressure of the compressed gas in the

gas chamber that is formed separately from said storage chamber, a valve

for connecting and blocking between said storage chamber and said connection

15 portion, the flow rate regulation filter described in one of Claims 1 through

4 that is arranged in the path from said storage chamber to said connection

portion, wherein the amount of discharging said liquid contents is adjusted through the flow rate regulation filter.

6. The fuel container for a fuel cell described as in Claim 5 or Claim 6 wherein said liquid contents is one selected from the group consisting of methanol, methanol and pure water, ethanol, ethanol and pure water, dimethyl ether and pure water, dimethyl ether and pure water and methanol, and dimethyl ether and pure water and ethanol.
7. A fuel container for a fuel cell characterized in that said fuel container for a fuel cell is comprised of a container body having a connection portion that is opened externally for supplying the liquid contents and a storage chamber for storing the contents, a valve for connecting/blocking between said connection portion and said storage chamber, and the flow rate regulation filter described in one of Claims 1 through 4 that is arranged in the path from said storage chamber to said connection portion, wherein the gases vaporized from the liquid contents in said storage chamber are discharged via said valve under the pressure of the gases, and the amount

of said gases to be discharged is adjusted by said flow rate regulation filter.

8. The fuel container for a fuel cell described as in Claim 5 wherein said liquid contents are dimethyl ether.

5 9. A fuel container for a fuel cell characterized in that said fuel container for a fuel cell is comprised of a container body having a connection portion that is opened externally for supplying the liquid contents, a storage chamber for storing the contents that is formed in the interior of the container body, a valve for connecting/blocking between said connection
10 portion and said storage chamber, and the flow rate regulation filter described in one of Claims 1 through 4 that is arranged in the path from said storage chamber to said connection portion, wherein the liquid contents in said storage chamber are discharged via said valve under the pressure of liquid contents, and the amount of said gases to be discharged is adjusted
15 by said flow rate regulation filter.

10. The fuel container for a fuel cell described as in Claim 9 wherein said liquid contents is one selected from the group consisting of dimethyl

ether, dimethyl ether and pure water, dimethyl ether and pure water and methanol, and dimethyl ether and pure water and ethanol.

11. A pressure container characterized in that it is comprised of a container body having a connection portion that is opened externally for supplying the liquid contents, a storage chamber that is formed in the interior of the container body for storing said liquid contents, an extrusion means by extruding the liquid contents in the storage chamber under the pressure of the compressed gas in the gas chamber that is formed separately from said storage chamber, a valve for connecting and blocking between said storage chamber and said connection portion, the flow rate regulation filter described in one of Claims 1 through 4 that is arranged in the path from said storage chamber to said connection portion, wherein the amount of discharging said liquid contents is adjusted through the flow rate regulation filter.

12. A pressure container characterized in that it is comprised of a container body having a connection portion that is opened externally for supplying the liquid contents and a storage chamber for storing the contents, a valve

for connecting/blocking between said connection portion and said storage chamber, and the flow rate regulation filter described in one of Claims 1 through 4 that is arranged in the path from said storage chamber to said connection portion, wherein the gases vaporized from the liquid contents in said storage chamber are discharged via said valve under the pressure of the gases, and the amount of said gases to be discharged is adjusted by said flow rate regulation filter.

13. A pressure container characterized in that it is comprised of a container body having a connection portion that is opened externally for supplying the liquid contents, a storage chamber for storing the contents that is formed in the interior of the container body, a valve for connecting/blocking between said connection portion and said storage chamber, and the flow rate regulation filter described in one of Claims 1 through 4 that is arranged in the path from said storage chamber to said connection portion, wherein the liquid contents in said storage chamber are discharged via said valve under the pressure of the liquid contents, and the amount of said gases to be discharged is adjusted by said flow rate regulation filter.